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**Table of Contents for Bowie Street Tree Permit**  
**Heritage Tree Variance Package**

The following variance package is organized as follows:

1. Cover Sheet
2. Staff Memorandum
3. Staff Findings of Fact
4. Applicant Memorandum
5. Aerial of Subject Property
6. Driving Directions
7. Exhibits



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**ITEM FOR PLANNING COMMISSION AGENDA**

**BOARD MEETING**

**DATE REQUESTED:** September 13, 2011

**PROJECT NAME:** 311,313,315 Bowie Street

**ADDRESS  
OF PROPERTY:** 311,313,315 Bowie Street

**TREE PERMIT:** 10617196

**NAME OF APPLICANT:** Will Marsh  
Cerco Development, Inc.  
512-682-5550

**CITY ARBORIST  
STAFF:** Keith Mars, 974-2755  
keith.mars@ci.austin.tx.us

**ORDINANCE:** Heritage Tree Ordinance

**REQUEST:** The applicant is requesting to remove a heritage tree with a stem greater than 30" in diameter.

**STAFF**

**RECOMMENDATION:** The request to remove the 32" Pecan does not meet the City arborist approval criteria set forth in LDC 25-8-624(A).



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## MEMORANDUM

**TO:** Dave Sullivan, Chair  
Commissioners of the Planning Commission

**FROM:** Keith Mars, City Arborist Program  
Planning and Development Review

**DATE:** September 13, 2011

**SUBJECT:** 311,313,315 Bowie Street

**REQUEST:** The applicant is requesting to remove a heritage tree with a stem greater than 30 inches as allowed under LDC 25-8-643

### Area Description

The subject property is a 0.97 acre tract located at 311,313,315 Bowie Street (Exhibit 1). The zoning is Downtown Mixed Use-Central Urban Redevelopment (DMU-CURE) allowing 100 percent impervious cover, 12:1 FAR and 400 feet building height. The desired use is either an office or residential tower located above a multi-level parking structure. The property is located in the Shoal Creek Watershed and is subject to urban watershed regulations.

### Tree Evaluation

The subject tree is a 32.0 inch diameter at breast height (dbh) Pecan (*Carya illinoensis*). The tree height is 57 feet and the canopy spread is 55 feet (Exhibit 2). The canopy is generally symmetrical exhibiting less than five percent deadwood with minimal structural defects (Exhibit 2). Dense, heavy branch ends appear to be the only visible evidence for potential branch failure (Exhibit 3). Storm damage is evident by the presence of broken stems, though no noticeable decay or structural weaknesses are present (Exhibit 4). Subsurface conditions are characterized by greater than 90 percent impervious cover over the root system, compacted and consolidated soil, and fill material that has partially buried the root flare (Exhibit 5). Rainfall catchment area is limited by the extent of impervious cover though it is likely shallow groundwater is influencing soil moisture in the rhizosphere (interface between root system and soil). Decay is not apparent and unlikely since the soil is principally composed of abiotic minerals as opposed to organic soils. Given the aforementioned conditions, the subject tree is rated 'good' per the City Arborist tree evaluation (Exhibit 6).

There is also a 28.0 inch diameter Pecan onsite that is proposed to be removed (Exhibit 7). This tree displays severe structural defects. There is a 2" x 10" cavity that exhibits

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significant decay as evidenced by the ~200 in<sup>3</sup> of void space (Exhibit 8). There is also a 8" x 12' decay column in the east stem (Exhibit 9). Further, the root flare has been buried 32 inches with rock, fill, stone, and brick (Exhibit 10) per the Bartlett assessment included in the applicant's memorandum. Given the aforementioned reasons both the City Arborist's assessment (Exhibit 11) and the Bartlett assessment concur that the subject tree is hazardous. The subject tree meets the criteria for administrative criteria for removal per both LDC 25-8-624(5)(a), diseased and restoration is not practicable, and LDC 25-8-624(A)(3) imminent hazard; thus the City Arborist will allow the subject tree to be removed and is not considered part of the variance request before the Environmental Board and Planning Commission.

#### **Mitigation**

Opportunities to mitigate onsite are not available. Possible mitigation opportunities include: (1) mitigation monies into the Urban Forest Replenishment Fund at 300 percent mitigation (\$19,200) or possibly (2) 90.5 inches of native trees planted on public property in the Shoal Creek Watershed. Transplanting the subject tree is unlikely to be successful for three reasons: (1) the extent of impervious cover around the subject tree limits the root mass able to be excavated, (2) the 32" Pecan is a poor candidate for transplanting due to the root structure and (3) offsite relocation is limited by overhead utility lines and road width that present barriers to mobilization of the tree.

#### **Variance Request**

The variance request is to allow removal of a heritage tree with one stem greater than 30 inches as allowed under LDC 25-8-643.

#### **Recommendations**

The variance request does not meet approval criteria for the City Arborist per LDC 25-8-624(A). If the Board recommends approval of the variance, staff recommends the following conditions.

- 300 percent mitigation. \$19,200 paid into the Urban Forest Replenishment Fund or;
- Mitigation can be in the form of \$19,200 contributed to the Shoal Creek Watershed project above and beyond current budget and project requirements. Mitigation monies shall be used for vegetation that provides functional benefits, such as water quality control, heat abatement, moderate stream temperature, etc.
- The subject tree cannot be removed until an approved site plan is issued and a preconstruction meeting is held.

If you need further details, please contact me at 974-2755 or keith.mars@ci.austin.tx.us.



Keith Mars, City Arborist Program  
Planning and Development Review

City Arborist:  
Michael Embesi





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**Planning and Development Review Department  
Staff Recommendations Concerning Heritage Tree Variances**

**Application Address: 311, 313, 315 Bowie Street**

**Size and Species of Tree(s): 32.0" Pecan (*Carya illinoensis*)**

**Reason for Request: The applicant is requesting to remove a heritage tree with a stem greater than 30 inches as allowed under LDC 25-8-643**

**Section I – Approval Criteria**

1) The requirement for which a variance is requested prevents a reasonable access to the property.

**No.**

2) The requirement for which a variance is requested prevents a reasonable use of the property.

**Possibly given the location and zoning of the property.**

3) The tree presents an imminent hazard to life or property and the hazard cannot be reasonably mitigated without removing the tree.

**No.**

4) Is the tree dead?

**No.**

5) Is the tree diseased? If so, is restoration to a sound condition practicable or can the disease be transmitted?

**No.**

6) For a tree located on public property or a public street or easement, the requirement for which a variance is requested prevents:

a) the opening of necessary vehicular traffic lanes in a street or ally, or

b) the construction of utility or drainage facilities that may not feasibly be rerouted.

**NA.**

7) The applicant has applied for and been denied a variance, waiver, exemption, modification, or alternative compliance from another City Code provision which would eliminate the need to remove the heritage tree, as required in Section 25-8-646 (*Variance Prerequisite*).

**No.**

8) Removal of the heritage tree is not based on a condition caused by the method chosen by the applicant to develop the property, unless removal of the heritage tree will result in a design that will allow for the maximum provision of ecological service and historic and cultural value from the trees preserved on the site.

No.

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*Do any of these criteria apply?      Yes/No [state which # applies]  
No. Therefore, findings of fact cannot be met.*

---

**Reviewer Name:**                      Keith Mars, City Arborist Program

**Reviewer Signature:**

Keith Mars

**Date:**

7/11/2011

CERCO DEVELOPMENT, INC.  
504 LAVACA, SUITE 1160  
AUSTIN, TEXAS 78701

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June 30, 2011

**VIA HAND DELIVERY**

Keith Mars  
City Arborist Program  
City of Austin  
505 Barton Springs Road, 4<sup>th</sup> Floor  
Austin, TX 78704  
(512) 974-2755 office

**RE: Property located at 311, 313 & 315 Bowie Street – Tree Variance Request**

Dear Mr. Mars:

The following information is provided in regards to tree no. 6805 (32-Inch Pecan) and tree no. 6806 (29-Inch Pecan) identified on the attached Tree Location Exhibit. Removal of trees 6805 and 6806 is requested for the reasons detailed below. Please accept this Memorandum along with the associated exhibits and Tree Assessment Report as our formal request to place the Tree Variance Request on the July 20, 2011 Environmental Board agenda and the August 9, 2011 Planning Commission agenda.

We are requesting a variance for the removal of these two pecan trees to allow development of this property in a manner that is consistent with surrounding development. This property is surrounded by high-rises. The site is one of very few downtown sites unrestricted by capital view corridors or other development limitations. As such, the Austin City Council and the Planning Commission recently voted to rezone the property to a 12:1 FAR and 400 foot height limit. This rezoning of the property affirms the City Council and the Planning Commission's desire to see a high-rise built on this downtown site.

On review of our application, we hope you will agree that retaining these two trees would be at cross-purposes with our recent zoning, making a high-rise development virtually impossible on the property.

Please note that removal of the trees would not occur until commencement of construction on the property subject to an approved City of Austin Site Plan.

**Project Summary:**

Given the property's downtown location, a mixed-use high-rise tower is planned for the property. The project will include ground floor retail space facing Bowie Street and either an office or residential tower (or some combination thereof) located above a multi-level parking structure. The dimensions and size (0.97 acres) of the property require the footprint of the high-rise (the ground floor level and parking levels above) to encompass essentially the entire site.

The interior of the site contains two (2) heritage trees identified on the attached Tree Location Exhibit. Both of these trees are located within the footprint necessary to construct a high-rise on the property. The applicant has performed a site visit with the city arborist to evaluate these two trees. Tree no. 6806 (29-Inch Pecan) is in poor condition and tree no. 6805 (32-Inch Pecan) is in good condition. At the recommendation of the city arborist and city staff, a private arborist was hired to provide a detailed Tree Assessment Report addressing the condition of the two trees. A copy of the report prepared by Bartlett Tree Experts has been provided.

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**Tax Base:**

The property currently generates approximately \$90,000 per year to the local taxing jurisdictions. When a high-rise is built, the property will generate in excess of \$2 million per year in property tax revenue.

**Environment/Sustainability:**

Nobody enjoys removing large trees from the landscape. However, at least in this case, the development of a high-rise on the property will promote the community goals of a more sustainable Austin. High-rise developments use less water, create less traffic, demand less new infrastructure, utilize more energy efficient building systems, and they are supportive of our air quality efforts to avoid non-attainment status. The differences in the environmental impact between a 250 home sub-division versus a 250 home high-rise tower are dramatic. The project will be participating in the Austin's Green Building program and/or attaining a Silver LEED status. In addition, with the project's adjacency to Shoal Creek, the city is able to finish the connections between the Shoal Creek trail and the Lady Bird Lake Hike & Bike Trail. The project creates the opportunity for long-sought trail enhancements along Shoal Creek.

**Site Location:**

311, 313 & 315 Bowie Street  
Austin, Travis County, Texas 78703  
Located on Bowie Street, south of 5<sup>th</sup> Street

**Zoning:**

Downtown Mixed Use – Central Urban Redevelopment (DMU – CURE) allowing 12:1 FAR and 400' building height. Current zoning on the property was approved on all three readings by the Austin City Council on Thursday, June 23, 2011. The Planning Commission approved the zoning unanimously on their consent agenda on June 14<sup>th</sup>, 2011.

The property's zoning classification prior to June 23, 2011 was Downtown Mixed Use (DMU). It is important to note that a suitably-dense building could not have been built even under DMU zoning (5:1 FAR & 120FT height limit) without removal of these two trees.

**Watershed:**

Shoal Creek Watershed which is classified as an Urban Watershed

**Property Acreage:**

0.97 Acres

Should you have any questions or need any additional information, please do not hesitate to contact me directly at (512) 682-5550.

Sincerely,

  
Will Marsh  
Cerro Development, Inc.

cc: Jamil Alam  
Larry Warshaw



2403 Howard Lane • Austin TX 78728  
512-310-7545 • 512-310-8074

## Tree Assessment Report

May 17, 2011

### SUBMITTED TO

Mr. Will Marsh  
Endeavor Real Estate Group  
504 Lavaca Street, Suite 1160  
Austin TX 78701

### SITE

315 Bowie Street  
Austin TX 78701

### SUBMITTED BY

Steve Kinslow, Arborist Representative  
ISA Certified Arborist #TX-3634A

### SUBJECT TREES

Tree #6805, 32-inch DBH Pecan  
Tree #6806, 29-inch DBH Pecan

### Report Goal

To inspect the condition of the subject trees and determine their fitness for transplanting or whether they should be removed based on findings

### Introduction

On May 4, 2011, I visited the property at 315 Bowie Street to inspect the subject trees. In addition to a visual assessment, site conditions indicating fill soil (particularly on tree #6806) prompted us to perform a root collar excavation on both trees. To minimize site disturbance, we limited our excavations to the south and east sides of each tree. The goal of the excavation was to tell us more about the health of Tree #6805 and provide more information on the condition of the buried root collar on Tree #6806. Our observations, including excavation findings, and recommendations follow.

### Observations

#### ***Tree #6805: 32-Inch DBH Pecan***

Located at the right rear of the Consort office, this tree stands approximately 60 feet in height. The stem leans 5 degrees toward the north, but the tree architecture is balanced. The crown is medium for stem size and has approximately 5% dead branches with a maximum size of 5 inches. The branch ends are dense and heavy. Two abrupt bends and a sweep are visible in the scaffold branches. A previous failure of a 6-inch limb is visible. The root flare is mostly exposed, and no evidence of root decay was visible upon excavating the south and east sides of the root collar. The root space is limited.

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#### **Tree #6806: 29-Inch DBH Pecan**

This tree is located at the right rear of the Consort parking lot and stands approximately 55 feet in height. The crown is medium for stem size, and the tree architecture is balanced. About one percent of the branches in the crown are dead with a maximum size of 3 inches. Branch ends are dense and heavy. Five abrupt bends and several previous branch failures are visible. This tree has a codominant-stem structure with a crotch at 8 feet. The codominant stems measure each approximately 19 and 24 inches in diameter. The stem growing to the west displays a 9-inch cavity just above the crotch, and the stem growing east displays a decay column of approximately 12 feet in length and up to 8 inches wide. A crack and borer gallery extend the length of the decay column. A 2" x 10" cavity appears at approximately 4.5 feet on the main stem. Excavation of the south and east sides of the root crown revealed that the root flare is buried with 32 inches of rocky fill, stone, and brick. The excavation did not reveal evidence of decay in the area excavated. The root space is very limited.

#### **Discussion**

Tree #6805 is a stable, attractive tree with minor flaws that are typical of older pecans in urban settings. One question on the property is the suitability of this tree to be transplanted. In our experience, large pecan trees are not good candidates for relocation. As pecan is a bona-fide tap root species, transplanting large specimens in deep soils will sever this large root and eventually lead to decay and tree failure. This is due to the difficulty in capturing a deep enough root ball and the associated weight of the transplant.

Tree #6806 displays numerous problems. Although the canopy gives the appearance of a healthy tree, the structure of the tree has fundamental problems. The east stem is decayed and cracked and highly likely to fail. Abrupt bends in the scaffold branches, previous failures, persistent dead wood and cavities add to the declining and hazardous condition of this tree. The buried root collar and limited root space have likely contributed to the declining condition of the tree and would likely contribute to further decline of this tree over time.

#### **Recommendations**

With regard to tree # 6806, incumbent decay, root collar disorders, and accumulated stress coupled with high traffic in this area and high pedestrian presence make this tree an unreasonable hazard. Removal of this tree is the recommended before development.

Tree #6805, however, is a quality tree in good condition. Relocation of this tree is problematic due to the depth of the root ball needed for a successful transplant and the urban nature of the site. Unless an unusually large root zone were left for this tree, development around this large riparian tree would likely cause enough site disturbance and internal soil drainage changes to cause the tree to decline.

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## Photo Documentation

### *Tree #6805*



Left photo – structure of Tree #6805.

Photo above – root collar of Tree #6805.

### *Tree #6806*



Left photo – structure of Tree #6806.

Right photo – abrupt bend in the crown of Tree #6806.

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Left photo – decayed east stem and previous storm damage on Tree #6806.

Right photo – broken stubs in Tree #6806 from previous storm damage.



Left photo – view of exposed root collar on the south side of Tree #6806.

Right photo – view of fill depth (32 inches) over the root collar of Tree #6806.

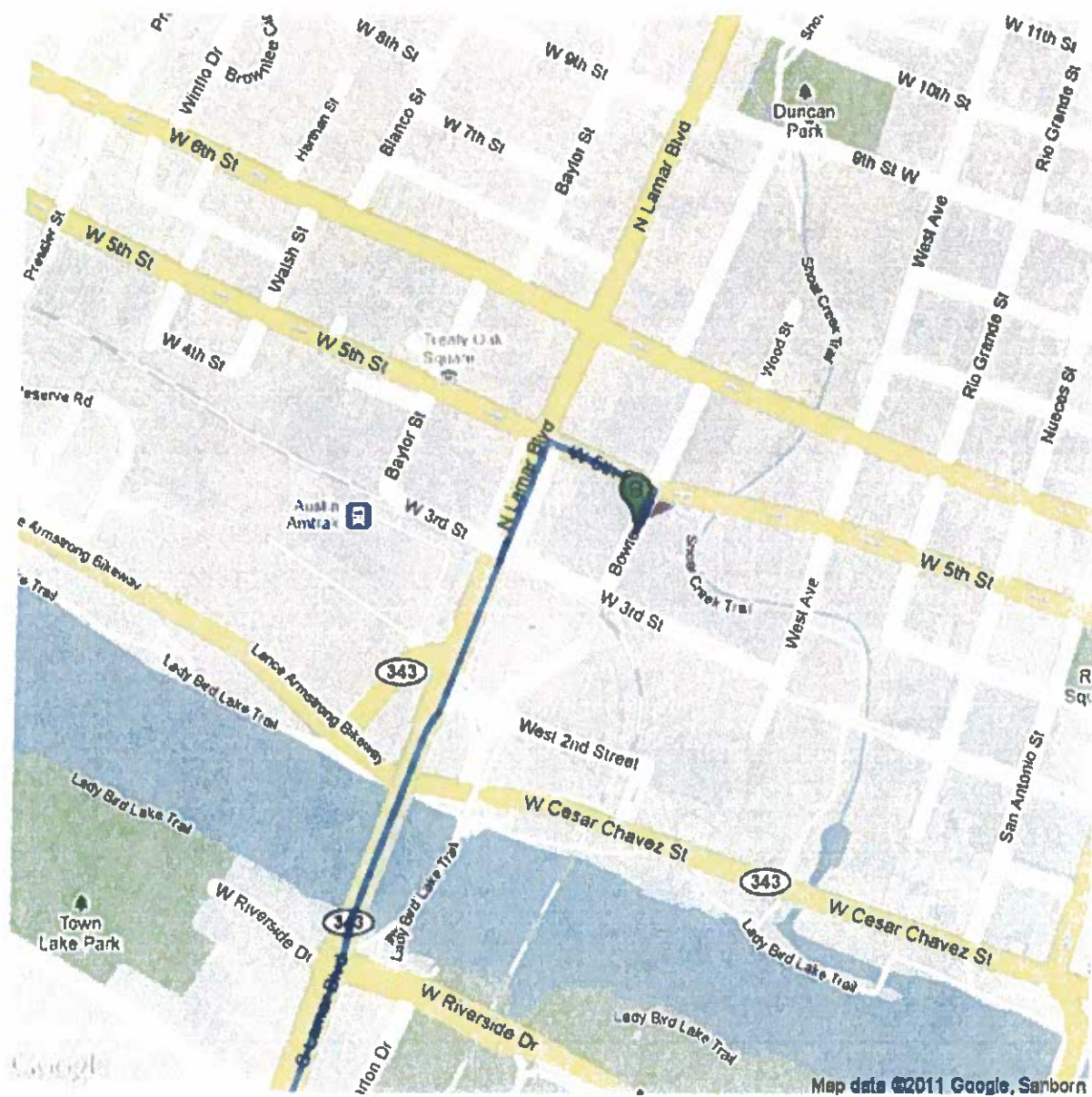
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Download Google Maps on your phone at [google.com/gmm](http://google.com/gmm)



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505 Barton Springs Rd, Austin, TX 78704

- |   |  |              |
|---|--|--------------|
| 1 | Head west on Barton Springs Rd toward S 1st St | go 0.5 mi    |
|   | About 1 min                                    | total 0.5 mi |
| ➤ | 2. Turn right onto S Lamar Blvd                | go 0.7 mi    |
|   | About 2 mins                                   | total 1.2 mi |
| ➤ | 3. Turn right onto W 5th St                    | go 472 ft    |
|   |  | total 1.3 mi |
| ➤ | 4. Take the 1st right onto Bowie St            | go 180 ft    |
|   |  | total 1.4 mi |



Bowie St

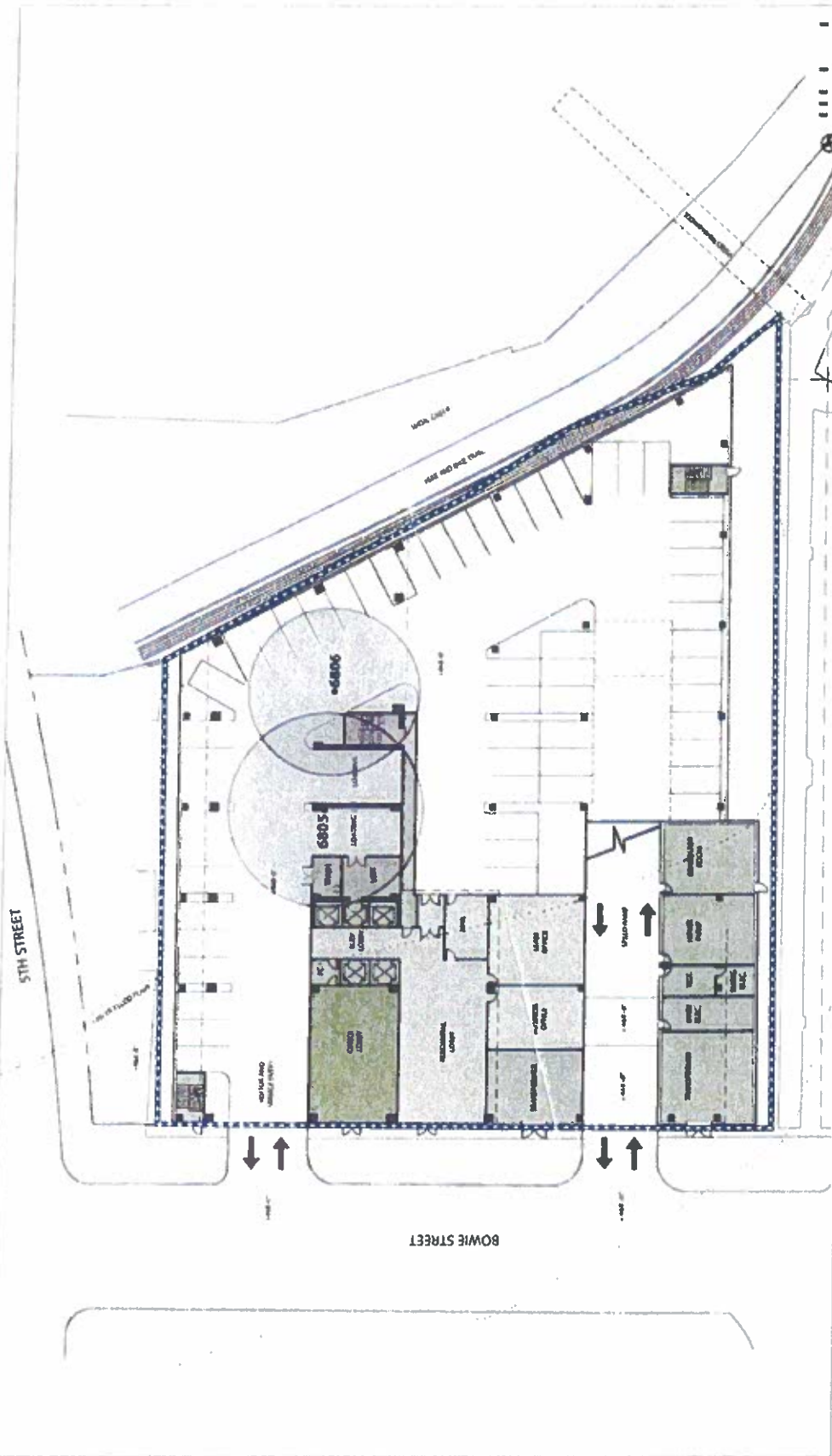
These directions are for planning purposes only. You may find that construction projects, traffic, weather, or other events may cause conditions to differ from the map results, and you should plan your route accordingly. You must obey all signs or notices regarding your route.

Map data ©2011 Google, Sanborn

Directions weren't right? Please find your route on [maps.google.com](http://maps.google.com) and click "Report a problem" at the bottom left.

Exhibit 1

Exhibit: Ground Floor Building Footprint with Tree Locations



ENDEAVOR - 5th & BOWIE

AUSTIN, TX

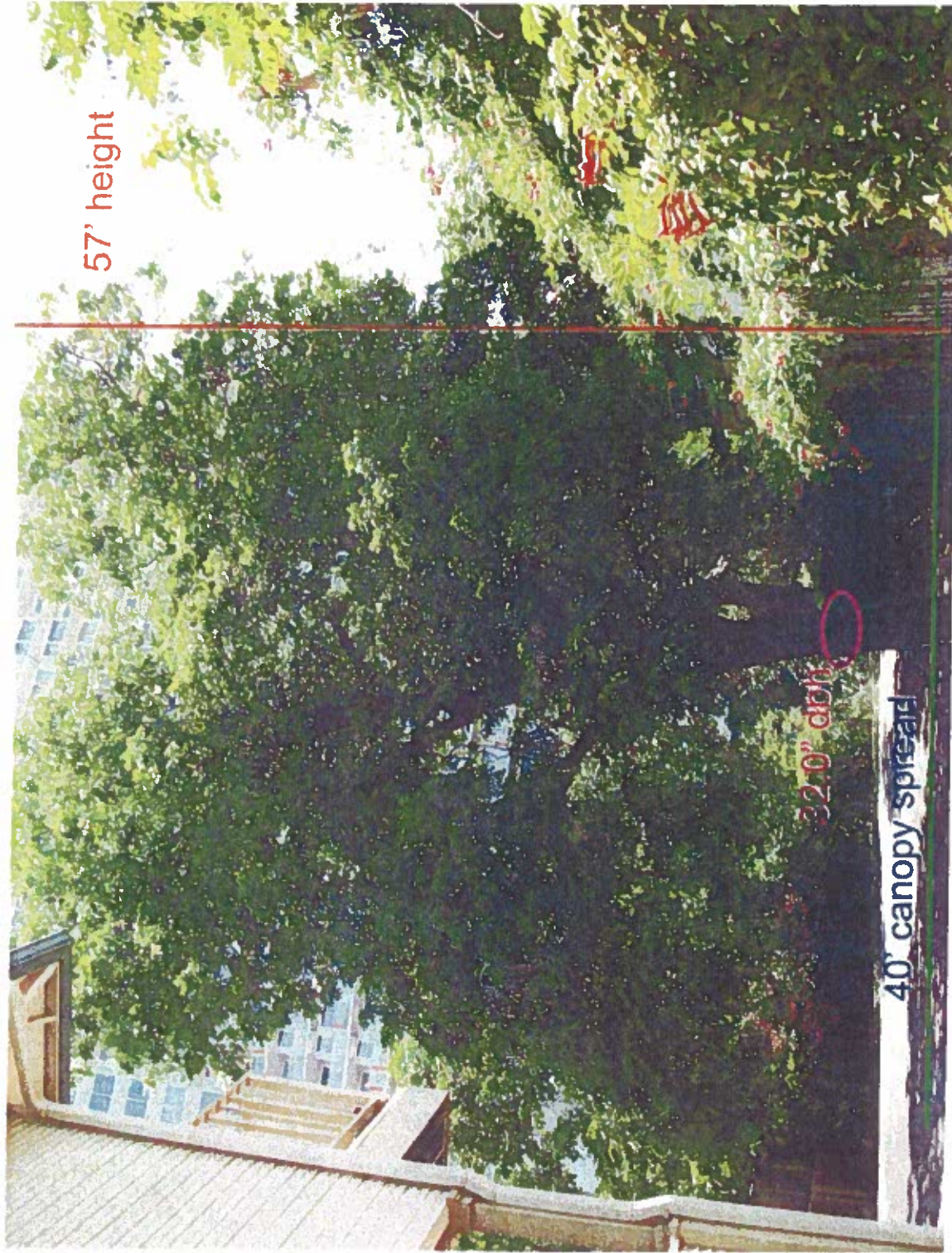


GROUND FLOOR PLAN

JUNE 20, 2011 11:47:07

HKS

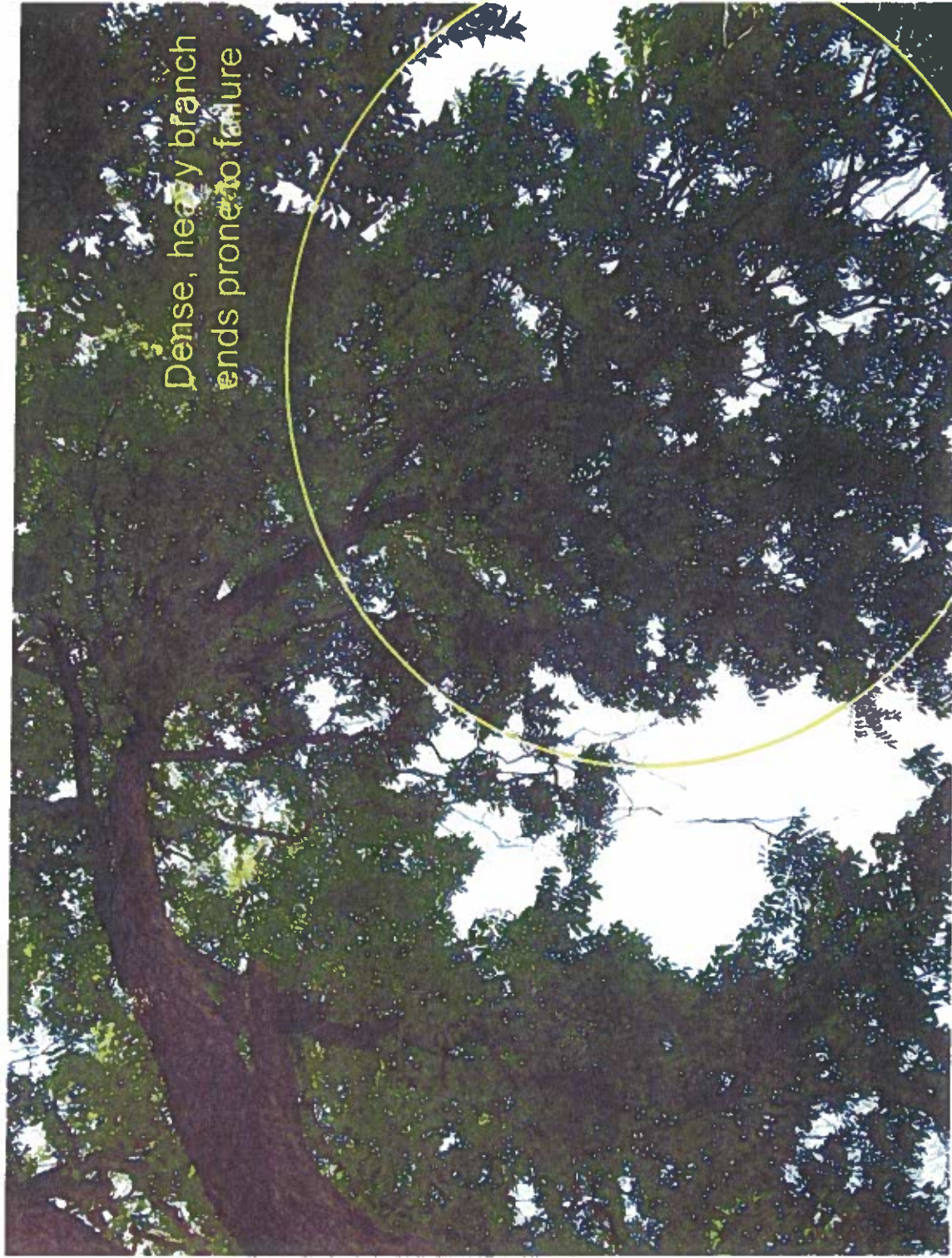
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Exhibit 2

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Dense, heavy branch  
ends prone to failure

Exhibit 3

C2  
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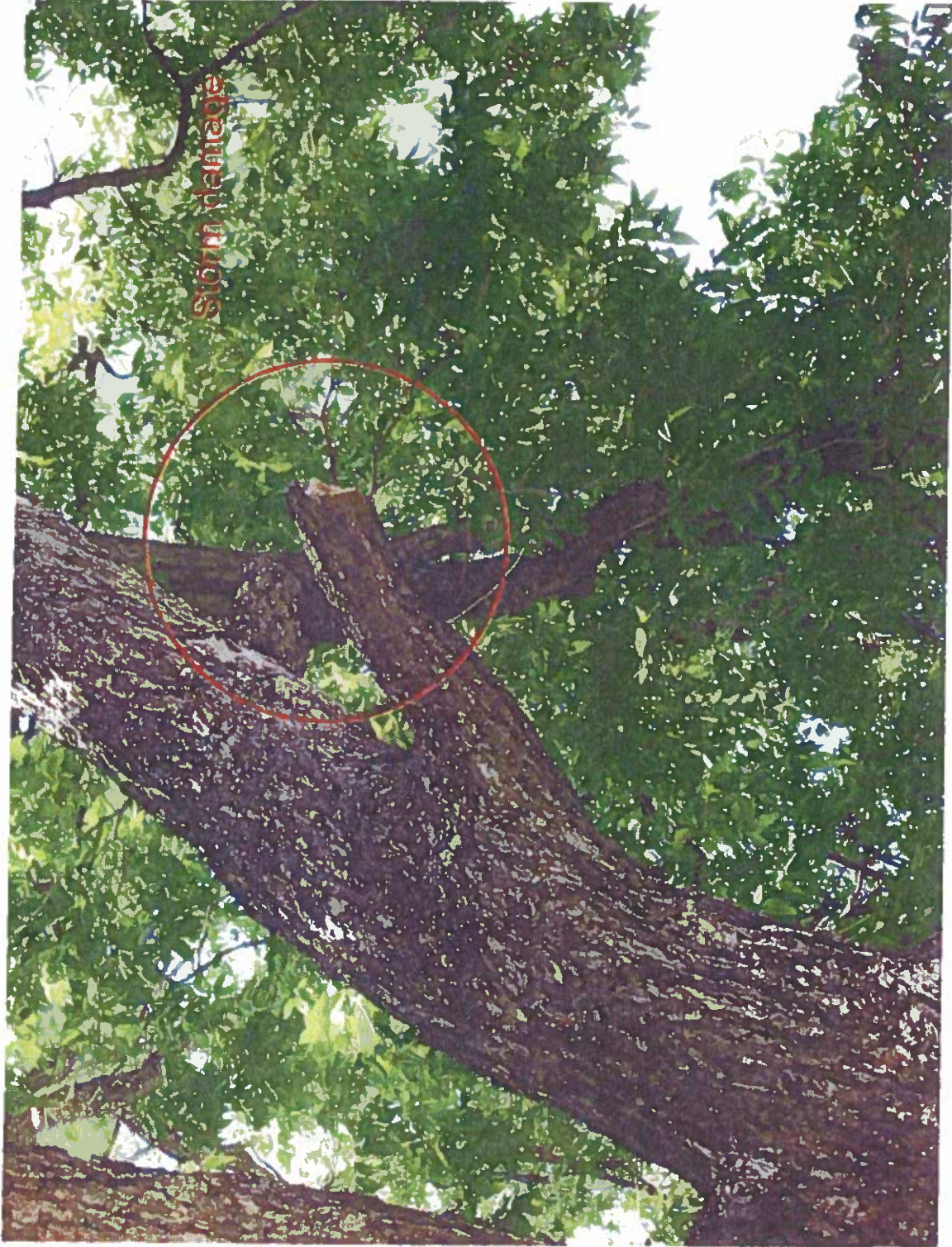


Exhibit 4

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Exhibit 5



Exhibit 6  
C2  
21  
-13  
63  
751

## TREE EVALUATION

Property address: 311, 313, 317  
301, 303, 305 Bowic St  
Date: 7/7/11  
Evaluator: Keith Mars  
SIGNATURE: [Signature]  
ISA/ASCA Certification #: TX-2677A

### 1. TREE CHARACTERISTICS

DBH of each trunk: 32.0" Common & Latin name: Pecan (Carya illinoensis)  
Location: Private / Public Estimated height & canopy spread (ft): 57' height, ~55' canopy spread  
Age class: young / mature / over-mature / dead (if dead, there is no need to fill out section 2)  
Deadwood: 0% 0-10% 10-25% 25-50% >50%  
Form: generally symmetric / minor asymmetry / major asymmetry / stump sprout  
Pruning history: crown cleaned / excessively thinned / topped / crown raised  
pollarded / crown reduced / utility clearance / storm damage cleaning / none  
Crown class: dominant / co-dominant / intermediate / suppressed

### 2. TREE HEALTH

Foliage color: normal / chlorotic / necrotic Epicormics: Y / N  
Foliage density: normal / sparse Leaf size: normal / abnormal  
Annual shoot growth: 2-4 inches Twig dieback: Y / N  
Callus development: Y / N If so, is callusing: excellent / average / fair / poor  
Vigor class: excellent / average / fair / poor  
Major pests/diseases: ants

### 3. SITE CONDITIONS

Site character: residence / commercial / industrial / park / open space / natural / other (see below)  
Landscape type: parkway / raised bed / container / open / other (see below)  
Irrigation: none / adequate / inadequate / excessive / trunk wetted  
Dripline paved: 0% 10-25% 25-50% 50-75% 75-100%  
Dripline w/ fill soil: 0% 10-25% 25-50% 50-75% 75-100%  
Dripline grade lowered: 0% 10-25% 25-50% 50-75% 75-100%  
Dripline grade raised: 0% 10-25% 25-50% 50-75% 75-100%  
Soil problems: drainage / shallow / compacted / small volume / other (see below)  
Obstructions: lights / signage / line of sight / view / overhead lines / traffic / other (see below)  
Wind (tree position): single tree / below canopy / above canopy / recently exposed / canopy edge  
Other: \_\_\_\_\_

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4. TREE DEFECTS - IDENTIFY ALL AREAS AND SEVERITY THAT APPLY TO EACH DEFECT

| DEFECT TYPE           | DEFECT AREA | DEFECT SEVERITY | NOTES               | LEGEND   |
|-----------------------|-------------|-----------------|---------------------|--|
| Poor taper            |             |                 |                     | <p>AREA</p> <p>T - Trunk(s)<br/>R - Root Flare<br/>L - Lateral Roots<br/>S - Scaffolds<br/>B - Branches</p> <p>SEVERITY</p> <p>S - Severe<br/>M - Moderate<br/>L - Low</p> |
| Conspicuous knots     |             |                 |                     |  |
| Multiple attachments  |             |                 |                     |  |
| Trunk decay           |             |                 |                     |  |
| Excessive end weight  | B           | M               |                     |  |
| Cracks/splinters      |             |                 |                     |  |
| Hangers               |             |                 |                     |  |
| Swelling              |             |                 |                     |  |
| Wounds                |             |                 |                     |  |
| Trunk cavity          |             |                 |                     |  |
| Deadwood              |             |                 |                     |  |
| Bleeding              |             |                 |                     |  |
| Nesting hole/bee hive |             |                 |                     |  |
| Deadwood              |             |                 |                     |  |
| Borers/termites/ants  |             |                 |                     |  |
| Previous failure      | S, B        | L               | storm damage likely |  |

7. OTHER FEATURES

Lean: 5 degrees from vertical    natural or unnatural    Soil heaving: Y / N  
 Decay in plane of lean: Y / N    Roots exposed: Y / N    Soil cracking: Y / N  
 Lean severity: S / M / L    Compounding factors: \_\_\_\_\_  
 Suspect root rot: Y / N    Mushroom/conk present: Y / N ID: \_\_\_\_\_  
 Exposed roots: S / M / L    Undermined: S / M / L  
 Root pruned: \_\_\_\_\_ feet from trunk    Root area affected: \_\_\_\_\_%    Buttress wounded: Y / N  
 Restricted root area: S / M / L    Potential for root failure: S / M / L

6. TARGET AND ABATEMENT

Use under tree: building / parking / traffic / pedestrian / recreation / landscape / hardscape  
 Occupancy: occasional use / medium, intermittent use / frequent use    Can target be moved: Y / N

RISK ABATEMENT

Action: prune / remove / other    Comments: \_\_\_\_\_

7. COMMENTS OR OTHER RISK FACTORS

Root space is limited. Some Fr Root Flare partially buried. Decay unlikely since soil is predominantly mineral rather than organic

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## Condition Definitions

**Excellent:** The tree is nearly perfect in condition, vigor, and form. This rarely used category is generally applicable to small trees or shrubs that have been recently transplanted and are well established. It also applies to large trees that have established themselves successfully in the landscape.

**Very Good:** Overall, the tree is healthy and satisfactory in condition, vigor, and form. The tree has no major structural problems, no mechanical damage, and may only have insignificant aesthetic, insect, disease, or structure problems.

**Good:** The tree has no major structural problems, no significant mechanical damage, may have only minor aesthetic insect, disease, or structure problems, yet is in good health.

**Fair:** The tree may exhibit the following characteristics: minor structural problems and/or mechanical damage, significant damage from non-fatal or disfiguring diseases, minor crown imbalance or thin crown, or stunted growth compared to adjacent trees or shrubs. This condition can also include trees that have been topped, but show reasonable vitality and show no obvious signs of decay.

**Poor :** The tree appears unhealthy and may have structural defects such as codominant stems, severe included bark, or severetrunk and/or limb decay. A tree in this category may also have severe mechanical damage, crown dieback, or poor vigor threatening its ability to thrive. Trees in poor condition may respond to appropriate maintenance procedures, although these procedures may be cost prohibitive to undertake.

**Critical:** The tree has a major structural problem that presents an unacceptable risk, has very little vigor, and/or has an insect or disease problem that is fatal and, if not corrected, may threaten other trees on the property.

**Dead:** This category refers to dead trees only.

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Exhibit 7

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Exhibit 8

C2  
26



Exhibit 9

C2/27



Exhibit 10

Exhibit 11 C2/28



## TREE EVALUATION

Property address: 301 303 305 Bowie St.  
 Date: 7/7/11  
 Evaluator: Keith Moss  
 SIGNATURE: [Signature]  
 ISA/ASCA Certification #: TX-3677A

-10  
105  
113  
+3

### 1. TREE CHARACTERISTICS

DBH of each trunk: 28.0" Common & Latin name: Pecan (Carya illinoensis)  
 Location: Private / Public Estimated height & canopy spread (ft): 57' height, ~40' canopy spread  
 Age class: young / mature / over-mature / dead (if dead, there is no need to fill out section 2)  
 Deadwood: 0% 0-10% 10-25% 25-50% >50%  
 Form: generally symmetric / minor asymmetry / major asymmetry / stump sprout  
 Pruning history: crown cleaned / excessively thinned / topped / crown raised  
 pollarded / crown reduced / utility clearance / storm damage cleaning / none  
 Crown class: dominant / co-dominant / intermediate / suppressed

### 2. TREE HEALTH

Foliage color: normal / chlorotic / necrotic Epicormics: Y / N  
 Foliage density: normal / sparse Leaf size: normal / abnormal  
 Annual shoot growth: 2-4 inches Twig dieback: Y / N  
 Callus development: Y / N If so, is callusing: excellent / average / fair / poor  
 Vigor class: excellent / average / fair / poor  
 Major pests/diseases: \_\_\_\_\_

### 3. SITE CONDITIONS

Site character: residence / commercial / industrial / park / open space / natural / other (see below)  
 Landscape type: parkway / raised bed / container / open / other (see below)  
 Irrigation: none / adequate / inadequate / excessive / trunk wetted  
 Dripline paved: 0% 10-25% 25-50% 50-75% 75-100%  
 Dripline w/ fill soil: 0% 10-25% 25-50% 50-75% 75-100%  
 Dripline grade lowered: 0% 10-25% 25-50% 50-75% 75-100%  
 Dripline grade raised: 0% 10-25% 25-50% 50-75% 75-100%  
 Soil problems: drainage / shallow / compacted / small volume / other (see below)  
 Obstructions: lights / signage / line of sight / view / overhead lines / traffic / other (see below)  
 Wind (tree position): single tree / below canopy / above canopy / recently exposed / canopy edge  
 Other: \_\_\_\_\_

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4. TREE DEFECTS - IDENTIFY ALL AREAS AND SEVERITY THAT APPLY TO EACH DEFECT

| DEFECT TYPE           | DEFECT AREA | DEFECT SEVERITY | NOTES | LEGEND   |
|-----------------------|-------------|-----------------|-------|--|
| Poor taper            | S, B        | L               |       | <p>AREA</p> <p>T - Trunk(s)<br/>R - Root Flare<br/>L - Lateral Roots<br/>S - Scaffolds<br/>B - Branches</p> <p>SEVERITY</p> <p>S - Severe<br/>M - Moderate<br/>L - Low</p> |
| Multiple attachments  | B           | M               |       |  |
| Excessive end weight  | B           | M               |       |  |
| Hangers               |             |                 |       |  |
| Wounds                |             |                 |       |  |
| Cavity                | S, B        | M               |       |  |
| Bleeding              |             |                 |       |  |
| Nesting hole/bee hive |             |                 |       |  |
| Borers/termites/ants  |             |                 |       |  |
| Previous failure      | B           | L               |       |  |
|                       |             |                 |       |  |
|                       |             |                 |       |  |
|                       |             |                 |       |  |
|                       |             |                 |       |  |

7. OTHER FEATURES

Lean: ~0 degrees from vertical natural or unnatural Soil heaving: Y / N  
 Decay in plane of lean: Y / N Roots exposed: Y / N Soil cracking: Y / N  
 Lean severity: S / M / L Compounding factors: extensive fill  
 Suspect root rot: Y / N Mushroom/conk present: Y / N ID: \_\_\_\_\_  
 Exposed roots: S / M / L Undermined: S / M / L  
 Root pruned: \_\_\_\_\_ feet from trunk Root area affected: \_\_\_\_\_% Buttress wounded: Y / N  
 Restricted root area: S / M / L Potential for root failure: S / M / L

6. TARGET AND ABATEMENT

Use under tree: building / parking / traffic / pedestrian / recreation / landscape / hardscape  
 Occupancy: occasional use / medium, intermittent use / frequent use Can target be moved: Y / N  
 RISK ABATEMENT  
 Action: prune / remove / other Comments: \_\_\_\_\_

7. COMMENTS OR OTHER RISK FACTORS

Extensive fill (see Bartlett report), multiple cavities, decay column in east stem

C2/30

## Condition Definitions

**Excellent:** The tree is nearly perfect in condition, vigor, and form. This rarely used category is generally applicable to small trees or shrubs that have been recently transplanted and are well established. It also applies to large trees that have established themselves successfully in the landscape.

**Very Good:** Overall, the tree is healthy and satisfactory in condition, vigor, and form. The tree has no major structural problems, no mechanical damage, and may only have insignificant aesthetic, insect, disease, or structure problems.

**Good:** The tree has no major structural problems, no significant mechanical damage, may have only minor aesthetic insect, disease, or structure problems, yet is in good health.

**Fair:** The tree may exhibit the following characteristics: minor structural problems and/or mechanical damage, significant damage from non-fatal or disfiguring diseases, minor crown imbalance or thin crown, or stunted growth compared to adjacent trees or shrubs. This condition can also include trees that have been topped, but show reasonable vitality and show no obvious signs of decay.

**Poor:** The tree appears unhealthy and may have structural defects such as codominant stems, severe included bark, or severe trunk and/or limb decay. A tree in this category may also have severe mechanical damage, crown dieback, or poor vigor threatening its ability to thrive. Trees in poor condition may respond to appropriate maintenance procedures, although these procedures may be cost prohibitive to undertake.

**Critical:** The tree has a major structural problem that presents an unacceptable risk, has very little vigor, and/or has an insect or disease problem that is fatal and, if not corrected, may threaten other trees on the property.

**Dead:** This category refers to dead trees only.